

Automating the Patient Record: VHA's Computerized Patient Record System

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The automation of medical care has been a pursuit of dedicated and capable individuals both in and outside of the VA for over 30 years. The Computerized Patient Record System (CPRS) Version 1 reflects the Veterans Health Affairs commitment to a new direction for DHCP, with a renewed emphasis on the development of software to improve the quality and efficiency of health care by assisting the front-line clinicians.

DHCP's changing direction includes more integrated packages, different types of users, meeting multiple requirements simultaneously, and the growing awareness that DHCP needs to sell itself to hospital management and clinical users. User involvement in the development process has become even more important than in the past. All the tools of User-centered design, including usability testing, have been employed more extensively in CPRS' creation than any previous DHCP package. The changing face of DHCP includes graphic user interfaces comparable to those in the commercial world.

The CPRS organizes and presents all relevant data on a patient in a way that directly supports clinical decision making. This data includes medical history and conditions, problems and diagnoses, diagnostic and therapeutic procedures and interventions. Both a graphic user interface version and a character-based interface version are available.

The graphic user interface (GUI) allows users to access, review, and use information in the same window. A chart metaphor makes almost all

pertinent data available in a quick and easy fashion. Clinicians will be able to create, edit, and view problem list, progress notes, orders, and results data simultaneously, and to cut and paste between them. Alerts, notifications, cautions, warnings, advanced directives, future appointments, demographic data, current medications, and current orders are all available on a single screen. This information will also be available to clerks, nurses, or quality assurance and research personnel.

Approximately 25 new and existing applications are integrated into the CPRS, including:

- Order entry
- Order Check/Expert System
- Notifications
- Text Integration Utilities
 - Progress Notes
 - Discharge Summary
- Authorization/Subscription
- Problem List
- Primary Care Management Module
- Visit Tracking
- Ancillary Service applications, such as Laboratory, Radiology, Pharmacy, Dietetics
- Infrastructure tools to support the Client/Server architecture

In this next phase of DHCP development, the VA has the opportunity to remain in the forefront of Medical Informatics through the creation of clinical software that is flexible enough to be implemented in a wide variety of settings by a broad spectrum of health care workers.